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ABSTRACT

Major factors affecting a student's decision to drop a particular class were studied in 1982 at Embry-Riddle Aeronautical University, Daytona Beach. A total of 793 questionnaire forms were returned indicating reasons for 1,152 course drops. The most frequently cited reason was reduction in load, while change of section and change of class were also frequently cited. Different response patterns were found depending on the department of the class and the time of the drop. A large number of students waited until the final week to drop a course involving academic problems. One-fifth of the students indicated dropping classes because of conflicts with work or transportation. Financial considerations were the most-cited cause for drops in flight courses. Additional reasons for drops included conflict with instructor, change of major or program, and personal problems. Respondents also indicated whether a class change involved (1) a different section number for the same course and department or (2) a different course number and/or department. The procedure for estimating the survey response rate is explained and a questionnare is appended. (SW)

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REASONS FOR CHANGE OF SCHEDULE

A Survey of Reasons Why Students Drop Classes

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Presented at the 1982 Annual Conference of the
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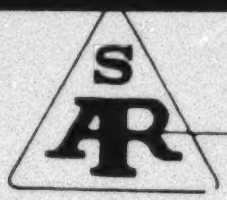

SOUTHERN ASSOCIATION FOR INSTITUTIONAL RESEARCH

This paper was presented at the 1982 Annual Conference of the Southern Association for Institutional Research held in Birmingham, Alabama, October 1982. It was reviewed by the SAIR Publications Committee and was judged to be of high quality and of interest to others concerned with the research in higher education. This paper has therefore been selected to be included in the ERIC collection of Conference Papers.

Gerald W. McLaughlin
President, SAIR

REASONS FOR CHANGE OF SCHEDULE

A Survey of Reasons Why Students Drop Classes

ABSTRACT

Many institutional research studies in the past decade have focused on the question of student retention or why students leave an institution of higher education. However, few studies have looked at the question of why students leave a particular class. This study focuses on that question, since this is also a source of institutional expenditure and less than optimum utilization of individual collegiate studies and expenses.

This study uses an institutionally-developed questionnaire to determine reasons for changing schedules. The survey, administered in the Spring of 1982, was completed by 793 students (for an adjusted response rate of 73.7%). Although the findings of this survey did not produce any new or startling results, it did confirm a number of previously-held "suspicions". Findings included statistically significant differences in stated reasons for drops due to the "time" of the drop and due to the academic department of the dropped class.

This type of study provides an opportunity for "front end" evaluation of a particular class (i.e. students who withdraw can provide reasons). Problems therefore, can be identified and addressed. The information provided by this type of study can also help the institution adjust policies to provide better academic and institutional support.

REASONS FOR CHANGE OF SCHEDULE

A Survey of Reasons Why Students Drop Classes

RATIONALE AND LITERATURE REVIEW:

It is well documented that student attrition (i.e. leaving an institution of higher education) is a paramount concern among college and university administrators. However, the question of "internal" student flow and "internal" attrition (i.e. leaving a particular program of studies or a particular class) has been the subject of comparatively few published studies. While a college or university may not lose as much money due to course drops, this still represents a significant cost in terms of underutilization of facilities and faculty time, as well as "personal" cost to the student in terms of interuption of his or her course of studies (as well as lack of a "return" on the invested tuition). For those interested in further research, Friedlander's (1981) study of "Why Students Drop Courses" stands as one of the best works on this question.

It is no secret that the largest expenditures at most colleges and universities are for faculty salaries and instructional operations. When students drop courses, effects include those listed above, as well as inefficient use of time and money for the student. With faculty "need" based primarily on instructional requirements (at non-research universities and at many research universities), an inefficient use of faculty and facilities represents a "real" cost which eventually has to be supported by students or taxpayers. One in-house study (Bottomley, et al, 1982) showed course drops for one academic term equalling approximately 10% of the total student credit hours (505.5 FTE[1]). With both students and money becoming increasingly scarce resources, can an institution afford to offer a high number of classes knowing that a significant portion will be dropped, or should the institution investigate ways to capitalize on this tendency, thus reducing institutional expenditures?

In order to properly address this issue while protecting the interests of all affected parties, reasons for drops must be known. This study details one attempt to determine these reasons at ERAU.

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[1] with one FTE equal to 15 (undergraduate) student credit hours.

INTRODUCTION:

This survey was conducted on the Daytona Beach Campus of ERAU during the Spring Term of 1982. The central focus of the study was to try and understand what were the major factors contributing to a student's decision to drop a particular class. An additional focus was to determine if the reasons varied over time. This study was initiated and undertaken jointly by the Office of Institutional Research, the Department of Registration & Records and the Office of Academic Affairs.

METHODOLOGY:

Because of the general lack of any other sufficient data, a decision was made early on in this study, to conduct a survey asking students why they are dropping particular classes. In order to minimize the time required for completion of this survey, and to maximize the useful data, the length of the questionnaire instrument itself was restricted to one page, in a "check-off"-type format (a copy of the questionnaire instrument is attached at the end of this report). Based on information received from other miscellaneous sources, and on information generated through "brainstorming" sessions, it was decided to group the reasons for dropping a class into the following categories:

1. Conflict between Classes (including Flight)
2. Conflict with Class and Work or Transportation
3. Conflict with Instructor
4. Change of Majors (Program)
5. Academic Problems (too difficult or not passing)
6. Personal Problems (family, social, interpersonal)
7. Financial Problems
8. Other Reasons

Since more than one of the aforementioned reasons could contribute to one's decision to drop a class, multiple responses were encouraged. Each form was constructed to accomodate up to three separate drops (and the consequent reasons). Space was also pro-

(continued)

METHODOLOGY (continued):

vided for the date (to allow some correlation between date and reason for the drop).

Three additional questions or items were included to allow the respondent to indicate if this drop was to:

a) Change a Class Section (same department and course, but a different section number)
b) Change a Class (different course number and/or department)
c) Reduce the Academic Load

This area of items ("types" of drops) was included to further clarify the reasons why students were dropping courses. This distinction was not indicated on the form, but was adhered to in the analysis.

The survey forms were distributed to students either from the Program Chairmen (for whose cooperation we are grateful), or personnel in the Registration & Records area, or by individuals passing forms to students waiting in the "drop-add" lines. Students were requested to return the completed forms along with their Change of Registration Forms, to the Department of Registration & Records. Analysis was performed by the Office of Institutional Research.

ANALYSIS:

A total of 793 questionnaire forms were returned indicating 866 reasons for drops (with 1,203 total responses) for 1,152 course drops indicated. After a complicated estimating process (for reference, see Appendix A: Estimate of Survey Response), it was estimated that the response rate for this survey was 73.7% indicating that of those students dropping classes but remaining enrolled in the University, responses were obtained from 73.7%.

The most frequently cited of the types of drops (items 1-3), was "Reduction in Load" (cited by 337 out of 616 for 54.7%). Change of Section was cited by 148 of the 616 (24.0%) and Change of Class was cited by 131 out of the 616 (21.3%). A breakdown of "types" is shown as Table B (attached). As expected, because of system constraints, Changes of Section and Class occurred in the first two days only (except for some insignificant data anomolies).

(continued)

TABLE A

Response Pattern by Department

Reasons for Drops

Response Per Question Item / Department of Dropped Class	Conflict between Classes	Conflict with Work/Trans.	Conflict with Instructor	Changed Major (Program)	Academic Problems	Personal Problems	Financial Problems	Other Reasons	Totals
Aero. Engineering	1	1	1	1	2	2	2	1	11
Air Force/Aerospace	0	0	0	4	0	2	0	6	12
Avia. Maint. Tech.	1	3	1	3	3	4	2	0	17
Aero. Science	5	31	10	17	26	6	12	3	110
Avionics	4	2	0	2	5	4	1	0	19
Computer Tech.	0	16	7	7	18	9	5	4	66
Economics	1	2	2	0	11	6	2	5	29
Elec. Tech.	1	2	1	1	3	8	1	2	19
Engineering Sci.	1	1	3	1	5	6	1	2	20
Engineering Tech.	0	0	2	1	5	5	2	1	16
Flight--Academic	0	1	1	17	2	4	30	6	61
Humanities	7	25	6	3	22	15	2	5	85
Mathematics	3	12	15	4	62	23	6	4	129
Management Sci.	2	31	10	2	26	13	8	10	102
Military Sci.	0	0	0	0	0	0	0	1	1
Physical Sci.	4	18	6	4	26	10	8	5	81
Social Science	2	7	2	4	8	8	2	1	34
Not Reported	2	13	8	3	16	5	3	4	54
TOTALS	34	165	75	74	241	130	87	60	866

ANALYSIS (continued):

The response to the items (4-11) about reasons for the drops showed that different response patterns emerged depending on the department of the class being dropped and depending on the time of the drop. Chi-Square analyses of difference between independent samples indicated statistically significant differences to the .001 alpha (α) level (meaning that only in one out of one thousand similar samples would we expect to see these kind of differences as a result of chance error, thus indicating a high level of certainty about the observed differences). Tables C, D and E present the data and findings of these statistical analyses.

As shown on Table A (previous page), students were slightly more likely to indicate academic problems with a Mathematics or Physical Science or Economics course (as a reason for a drop) than to indicate any of the other choices (41.4% of the reasons cited in these three areas were "academic problems"). In Air Force/Aerospace Studies and in Flight--Academic courses, students were quite likely to indicate that their reasons for dropping were because they changed their major program of study (28.8% of these two departments). However, 49.2% of the reasons given for dropping Flight courses were due to Financial Problems. In Management Science, Humanities, and Aeronautical Science classes, students were more likely to indicate a conflict with work or with transportation as the main reason for the drop (29.3% of the reasons cited for drops of classes in these three departments were conflict with work/transportation vs. 24.9% in these three departments for academic problems). Conflicts between classes and Other Reasons (which usually turn out to be a re-statement of one of the listed reasons) accounted for 3.9% and 6.9% of the reasons respectively. A change of major program of study accounted for 8.5% of the reasons and conflicts with instructors accounted for 8.7%.

The time of the drop also played a major role in determining why the student dropped a course. It was anticipated that a larger number of students would indicate academic problems as the main reason for a drop towards the end of the drop period. This was observed, although perhaps not to the degree anticipated. Academic problems appear to be a major contributing factor throughout the drop period,.

(continued)

ANALYSIS (continued):

although more so towards the end (the difference in academic vs. other reasons by time period also proved to be statistically significant to the .001 α level). Conflicts with Work or Transportation played a continually prevalent role in the decision, as did Personal Problems (although only a few cited Personal Problems in the first two days of drop-add). Financial Problems were more likely to be cited as contributing "causes" towards the earlier part of the drop period.

DISCUSSION:

The data collected in this study substantiates the claim that a large number of students wait until the final week to drop a course with which they are having academic difficulty. However, a large number of students also indicate that they drop classes due to conflicts with work or transportation (almost one-fifth of the indicated reasons for drops were due to conflicts with work/transportation). Financial considerations were the most-cited cause for drops in Flight courses. It may be worth noting that over two-thirds of the responses were generated during the first and last weeks, fairly well mirroring the patterns of drop activity illustrated in other (internal) studies.

Specific courses with recurrent high drop rates may indicate special problems. A study such as this one can assist academic decision-makers in determining the specific problem in an attempt to better suit the curriculum and course content to student needs and capabilities. Recently, the high recurrent drop rate for MS 110 (Accounting) focused attention on the content of this course. Through specification of reasons for drops, decision-makers were led to believe that the course content included more information than could be reasonably absorbed. Academic review confirmed this perception, which led to a revision of the course content (due to take effect in the Spring of 1983).

Another area of concern surfaced as a result of preliminary studies and this survey, and particularly as a result of the high number of students who indicated conflicts with work and/or transportation as causes of drops. With recent cutbacks in Federal

DISCUSSION (continued):

Student Aid, more students at this University found it necessary to take part-time jobs in order to stay in school. The current system of course scheduling included very few evening courses, forcing the students to attend class during the day. Students were surveyed to determine interest in alernative course schedules which in turn led to revised course scheduling systems (also due to take effect in the Spring of 1983).[2]

With increased cost for operations, activities and procedures which may be less than optimally productive are coming under more intense scrutiny. By assessing reasons for changes in student schedu'es, not only will the institutional researcher gain valuable information which can be applied to institutional practices and policies, but the institution may very well benefit from a perception on the part of the students that "somebody is listening".

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[2] Bottomley, Yates, Bulger & TerBeek: Interest in Evening Courses: Survey Analysis. Presented at 1982 SAIR meeting, ERAU.

TABLE B

Response Pattern by Department

Types of Drops

Response Per Question Item	Change of Section (same dept. & course, different section number)	Change of Class (different department and/or course)	Reduction of Load (to get fewer total credit hours)	TOTALS
Aero. Engineering	4	2	2	8
Air Force/Aerospace	1	0	4	5
Avia. Maint. Tech.	8	0	4	12
Aero. Science	24	30	36	90
Avionics	1	1	4	6
Computer Tech.	6	6	26	38
Economics	5	7	20	32
Elec. Tech.	1	1	7	9
Engineering Sci.	9	3	10	22
Engineering Tech.	1	2	6	9
Flight--Academic	0	6	4	10
Humanities	26	15	46	87
Mathematics	17	16	40	73
Management Sci.	20	11	53	84
Military Sci.	0	0	0	0
Physical Sci.	15	15	39	69
Social Science	5	8	17	30
Not Reported	5	8	19	32
TOTALS	148	131	337	616

TABLE C

Response Pattern by Department Group

Reasons for Drops

Responses Per Question Item / Department Group	Conflict between Classes	Conflict with Work/Trans.	Conflict with Instructor	Changed Major (Program)	Academic Problems	Personal Problems	Financial Problems	Other Reasons	Totals
ENGINEERING (AE/ES/ET)	2	2	6	3	12	13	5	4	47
MAINTENANCE (AMT/AV/EL)	6	7	2	6	12	16	4	2	55
MANAGEMENT (AT/EC/MS/MT)	3	33	12	6	37	21	10	22	144
FLIGHT (AS/FA)	9	32	11	34	28	10	42	9	171
COMPUTER SCIENCE (CT)	0	16	7	7	18	9	5	4	66
GENERAL COLLEGE STUDY (BU/MA/SS/NR*)	14	57	31	14	108	51	13	14	302
PHYSICAL SCIENCES (PS)	4	18	6	4	26	10	8	5	81
Totals	34	165	75	74	241	130	87	60	866

Chi-Squared Analysis Data

degrees of freedom = 42
calculated x^2 = 167.001
.1 level (.001) = 73.402 (40 df)

Result: Reject Hypothesis that there is no difference in response patterns between the groups (above--99.9% certainty).

* Not Reported: No Department or Class was specified

TABLE D

Response Pattern by Department

Reasons for Drops

[Three Selected Departments]*

Response Per Question Item	Conflict between Classes	Conflict with Work/Trans.	Conflict with Instructor	Changed Major (Program)	Academic Problems	Personal Problems	Financial Problems	Other Reasons	Totals
Aeronautical Science	5	31	10	17	26	6	12	3	110
Mathematics	3	12	15	4	62	23	6	4	129
Management Science	2	31	10	2	26	13	8	10	102
TOTALS	10	74	35	23	114	42	26	17	341

Chi-Squared Analysis Data

degrees of freedom = 14
calculated x^2 = 65.739
α level (.001) = 36.12

Result: Reject Hypothesis that there is no difference in response patterns between the three departments selected (above--99.9% certainty).

* Criteria for Selection: Over 100 indicated Reasons for Drops

TABLE E

Response Pattern by Time Period

Reasons for Drops

Response Per Question Item / Time Period*	Conflict between Classes	Conflict with Work/Trans.	Conflict with Instructor	Changed Major (Program)	Academic Problems	Personal Problems	Financial Problems	Other Reasons	Totals
PERIOD A (1/7-1/8)	26	61	20	43	66	24	36	18	294
PERIOD B (1/18-1/29)	4	17	4	13	14	15	17	9	93
PERIOD C (2/1-2/28)	1	20	18	9	33	21	10	10	122
PERIOD D (3/1-3/6)	0	9	4	1	21	9	10	7	61
PERIOD E (3/8-3/11)	3	58	29	8	107	61	14	16	296
TOTALS	34	165	75	74	241	130	87	60	866

Chi-Squared Analysis Data

degrees of freedom = 28
calculated x^2 = 128.294
α level (.001) = 56.892

Result: Reject Hypothesis that there is no difference in response patterns between the time periods cited (above--99.9% certainty)

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* These time periods equate to:

Period A: Drop-Add Period (first two days of Spring Drops)
Period B: The rest of January for which forms were completed
Period C: The month of February
Period D: The next-to-the-last week of drops
Period E: The final week of drops.

NOTE: There may be some slight error in the totals per time period due to attribution of undated questionnaire forms.

TABLE F

Response Pattern (Percentages) by Time Period

Reasons for Drops

Percent of Responses Per Item / Time Period*	Conflict between Classes	Conflict with Work/Trans.	Conflict with Instructor	Changed Major (Program)	Academic Problems	Personal Problems	Financial Problems	Other Reasons	TOTAL NUMBER OF RESPONSES	Percentage of Grand Total
Period A	8.8	20.7	6.8	14.6	22.4	8.2	12.2	6.1	294	34.0%
Period B	4.3	18.3	4.3	14.0	15.1	16.1	18.3	9.7	93	10.7%
Period C	0.8	16.4	14.7	7.4	27.0	17.2	8.2	8.2	122	14.1%
Period D	0.0	14.8	6.6	1.6	34.4	14.8	16.4	11.5	61	7.0%
Period E	1.0	19.6	9.8	2.7	36.1	20.6	4.7	5.4	296	34.2%
TOTALS	3.9	19.1	8.7	8.5	27.8	15.0	10.1	6.9	866	100.0%

* Dates of Time Periods:

Period A: January 7, 1982 - January 8, 1982
Period B: January 18, 1982 - January 29, 1982
Period C: February 1, 1982 - February 28, 1982
Period D: March 1, 1982 - March 6, 1982
Period E: March 8, 1982 - March 11, 1982 (Final Week of Drop Period)

APPENDIX A: ESTIMATE OF SURVEY RESPONSE

Based on data obtained from Registration & Records, a total of 2,282 courses had been dropped from January 1 through March 19, 1982. Also, 150 individuals had withdrawn from the University up through the end of March (147 of whom were non-employees). Since the non-employees who had withdrawn could be expected to have an "average" course load equal to that of other students at the beginning of the Trimester (15.08 credit hours), the number of non-employee students who had withdrawn was multiplied times the average credit hour figure and divided by the average number of credit hours per class (approximately 3). This resulted in an estimate of 719 classes dropped because of student withdrawls. This subtracted from the total (2,282) yielded 1,563 classes which had been dropped by students remaining within the University in Spring Term.

Data had been collected on approximately 1,152 class drops*. The response rate was then estimated by dividing the total number of observed responses, by the total number of potential responses (or 1,152 ÷ 1,563) yielding a response rate of 73.7% (approximately). Due to missing elements of data (caused by some incomplete or partial responses on the questionnaire form iteself), these must be considered only estimates, but estimates based on objectively verifiable numbers.

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* Estimated because in some cases students did not note the class being dropped, or other "extraneous" information obscured an accurate assessment.

---WNB:OIR
4/27/82

REASONS FOR CHANGE OF SCHEDULE

During this academic trimester, we are collecting data on the reasons for dropping individual classes. Please complete this form and return it to the Department of Registration & Records, along with your Change of Registration forms. Please do not sign this form. If more than three classes are being dropped, please use additional forms. Thank you!

For the following three columns, please indicate the classes being dropped, and check as many responses in each column as are appropriate.

	Drop #1	Drop #2	Drop #3
CLASS BEING DROPPED (Dept., Course & Section Number)			
1. Change of Section (same department and course, different section)			
2. Change of Class (different department and/or course)			
3. Reduction of Load			
4. Conflict between Classes (include time conflicts between classes and labs or flight schedules)			
5. Conflict between Classes and Work or Transportation			
6. Conflict with Instructor (include personality conflicts and/or communications problems)			
7. I Changed my Major Area of Study			
8. Academic Problems (such as "too difficult", "not passing", etc.)			
9. Personal Problems (family or social problems, personal difficulties interferring with study)			
10. Financial Problems (problems related to the the cost of courses or of attending specific classes)			
11. Other Reasons:_____			

_____

_____

Today's Date_____

Thank You!

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